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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR WEEK ENDING NOVEMBER 1, 1924.

PUNTLEY:

Corn husking has occupied the entire week and it will require several more days to complete the job. Yields of Northwestern Dent from the rotations have been uniformly good and the quality for the most part excellent. Smut, which was abundant in the corn last year, has been met with only occasionally in this season's crop and the percentage of nubbins and deformed ears is small.

Winter wheat and rye continue to make a good growth but will require moisture before long on many of the plats.

Maximum temperature 79, minimum 2o; precipitation, 0.

SHERIDAN:

Quite favorable weather has prevailed throughout the entire week. The remainder of the corn and all of the forage crops have been hauled and weighed. Some of the sorgo was somewhat damp, but it seemed safer to set out a few plats to dry and weigh again for moisture determination than to leave it in the field to dry. This completes the plat work for the season, except for determining the dry weights of samples saved for that purpose. Considerable miscellaneous work remains to be done, however, if the weather continues favorable.

Maximum temperature 75, minimum 23; precipitation, 0.

MANDAN:

Agronomy.

The past week has been fairly favorable for field work. Rain on one day only delayed the work in the field.

Husking corn varieties has been in progress for three days. Corn still contains considerable moisture. The indications are that many of the varieties will go better than 30 bushels per acre.

The rainfall for the month of October was 1.94 inches. This is the greatest amount for October since 1898, and has been exceeded only three times in 50 years. The total precipitation for the year to November is 15.91 inches. The 50-year average for the same period is 15.30 inches.

There has been no hard freeze to date.

Maximum temperature 75, minimum 32; precipitation .07 inch.

Cooperative Grazing Experiment.

The cattle that were used in the grazing experiment the past season are still on the reserve pasture. They will be shipped early next week. Two carloads will go to Chicago, and twenty head will go to the Agricultural College.

Mandan, continued:

Arboriculture.

On account of its tendency to mould when heeled-in in bundles over winter, the Russian olive was counted in the field, and will not be lifted until spring. We now have a complete list of all trees available for shelterbelt work as follows:

Species	Size		Total
Northwest poplar	Medium	5,910	
	Small	5,170	11,080
Green ash	Large	2,230	
	Medium	19,000	
	Small	18,720	40,000
Boxelder	Large	1,930	
	Medium	15,380	
	Small	15,340	32,650
Caragana	Large	2,350	
	Medium	6,550	
	Small	3,550	12,450
Russian olive	Not graded		35,000
Tartarian maple	Large	660	
	Medium	10,000	
	Small	8,000	18,660
Chinese elm	Large	2,975	
	Medium	6,900	
	Small	3,150	13,025
Wild plum	Not graded		3,950
Pin cherry	Not graded		1,600
Choke cherry	Not graded		1.750

Shelterbelt demonstrations next spring will require about 140,000 trees of all species. This gives an ample surplus for replacements and to allow the furnishing of extra trees with each shipment for planting out in the farmers' gardens to be used to replace any trees that die in the original planting during the first season. This plan was instituted last spring with a result that the call for replacement trees by cooperators is much lower than it has ever been, effecting a marked decrease in the number of trees required for replacements next spring, and also in the number of individual shipments.

Height measurements of a portion of the shelterbelt combination tests were taken during the week, and some boxelder seed has been collected.

Mandan, continued:

Horticulture.

Due to the late season, field work is not as far advanced as is usually the case at the end of October. Raspberries and buds still remain to be covered, and seeds have not as yet been planted.

All nursery stock has been dug and heeled-in for the winter. The seed beds are being prepared for fall planting. The nursery land is being leveled to facilitate irrigation. The gardens are being cleaned of rubbish to get the land in shape for fall plowing.

ARCHER:

The temperatures have been mild but the wind rather severe. This delayed to some extent the husking of corn. However, all corn has been husked and seed selected. The only crop in the field is the sunflowers left for seed. Some of these are too green for threshing. The early maturing selection is ready to thresh.

Maximum temperature 69, minimum 29; precipitation .01 inch.

HAYS:

The weather continues dry and cool with varying temperatures ranging from 33 to 80 degrees. The climatic conditions have been fine all fall for all kinds of field work except for plowing. The ground is so dry and extremely hard it is very difficult to get a good job of plowing done.

During the week Plat A in Rotation 501 was plowed with the Spaulding deep tillage plow to a depth of 14 inches. Plat A of Rotation 502 was dynamited. Some other tillage work, including plowing and listing, was done and the meteorological instruments were stored for the winter.

The work on the commercial fields has consisted largely in heading and threshing sorghums and hauling feed. The station is also doing some building and general repair work.

GARDEN CITY:

Ideal Indian Summer weather has prevailed throughout the past week. The lowest temperature, 22, was recorded on the 31st. Up until that time no heavy freeze had been recorded. That temperature necessitated the cutting of the late sorghums that were still standing. All sorghums on the station are now in the shock. Owing to the late spring, quite an acreage of sorghum in this part of the state did not mature.

Garden City, continued:

Winter wheat on the dry land plats is looking fine and has made almost enough growth to cover the ground. A good stand of rye was secured on the plats seeded to that crop. The fourth crop of alfalfa on the station was harvested this week.

Maximum temperature 78, minimum 22; precipitation, Trace.

BIG SPRING:

Weather conditions have remained warm and dry during the past week, which has been very favorable for cotton picking. About 10,000 bales have been ginned in the county up to date, and it is estimated that there are about 7,000 bales more to come.

An increase field of cane was shocked last Monday. The remainder of the week has been spent in picking cotton and in threshing grain sorghums. Most of the dates of seeding sorghums and some of the early maturing varieties were threshed this week, as were also a good many milo plats in the rotations. The yields from all plats are considerably below the average this year.

Maximum temperature 88, minimum 35; precipitation 0.

TUCUMCARI:

The first severe frost of the fall occurred on the night of October 30, when the thermometer registered 28. Five weeks ago a light frost occurred on the station, although in many sections of the county it was so severe as to be considered a killing frost. About forty plats, all that remained to be cut, have been cut yesterday and today.

Threshing was begun early in the week, forty plats being handled. High winds two days prevented threshing and during that time cotton was picked.

With the exception of a number of days of very high wind, weather conditions have been very favorable this fall for harvesting. Farmers on the plains south of here have been heading milo for some weeks, while most binding was completed soon after the frost in late September. Wheat was seeded unusually early over much of this locality, due to an abundance of moisture, and most fields show excellent stands. Yields of milo and kafir will be above the average except where planting was done so late the plants did not mature seed.

Cotton picking has been progressing in the neighborhoods surrounding Logan and San Jon for some time and the gin at the former place has been in operation a few days.

Tucumcari, continued:

Precipitation to date for 1924, 13.28 inches, is practically 3 inches below the nineteen year average, all months of the year except August being below the average for this period.

Maximum temperature 81, minimum 23; precipitation 0.
Wind velocity 5.4 miles per hour.

NOTE:

Upon receipt of field reports for the week ending November 15, 1924, the final "Weekly Station Report" of this office for the year will be issued.

WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR WEEK ENDING NOVEMBER 8, 1924.

HUNTLEY:

Cool, damp weather has prevailed throughout the week, fog and occasional sprinkles of rain being responsible for this condition. Corn husking was completed on the 5th with the husking of the varieties. While most of the corn was fairly well matured, drying samples were taken from all of it and the moisture content will be determined, before the yields are calculated. Yields of corn in the rotations will not vary greatly from the average which will be in the neighborhood of 30 bushels per acre.

Winter wheat and rye appear thrifty in spite of the limited supply of soil moisture in most of the plats.

Maximum temperature 65, minimum 15; precipitation, Trace.

MANDAN:

Agronomy.

The past week has been unfavorable for field work. It has been cold, with high winds.

Husking of corn varieties was completed, and shredding started on the corn in the rotations. A high wind delayed shredding this forenoon. Corn in the rotations is running between 50 and 60 bushels per acre. Corn is fairly dry and in good condition for shredding.

The first hard freeze of the season came on the night of November 1, when the temperature dropped to 19° above.

Maximum temperature 52, minimum 17; precipitation 0.

Cooperative Grazing Experiment.

The cattle used in the grazing experiment during the pasture season were shipped on November 3. One carload went to the Agricultural College and two carloads to Chicago. The latter will go through a slaughter test.

The cattle lost close to 50 pounds per head from the close of the experiment to the time they were shipped. The shrinkage between the pasture and the stockyards was 10 pounds per head.

Arboriculture.

Annual height measurements in the shelterbelt combinations and specie testing blocks have been taken during the week. This work will be practically completed this week.

Mandan, continued:

Horticulture.

Raspberries and grapes were covered with soil on November 3. The nursery land has been leveled to facilitate irrigation, and is now ready to be manured and plowed. However, there is some frost in the ground, and plowing may have to be postponed until next spring. The frost also makes it difficult to finish planting in the seedbeds.

A considerable number of trees and bushes are being dug and discarded from the selection blocks.

Garden land has been raked and cleaned up, the acre-garden has been manured, and plowing of the acre-garden and vegetable breeding plats is now in progress.

Mr. F. H. Steinmetz, Agent, University Farm, St. Paul, Minnesota, Bureau of Agricultural Economics, visited the station seeking information as to sources and types of wild hay produced in this section.

BELLE FOURCHE:

The first snowfall of the season occurred on November 6 when about two and one-half inches of snow fell. The snow was dry and amounted to only .21 inch of water. The first cold spell of the season came on the 6th and 7th. The maximum for these two days was 25 and the minimum 4.

All of the dry land crops are now in and the only field work remaining to be done is the plowing of three corn plats. The yield of sorghum on fall plowing was a little less than three tons per acre. The yield on spring plowing was one-fourth ton per acre.

The total rainfall for October was 3.34 inches. This is the highest October rainfall ever recorded at the station.
Maximum temperature 68, minimum 4; precipitation .21 inch.

GARDEN CITY:

Weather conditions have been somewhat more severe during the past week. The nights have been colder and the temperature has failed to reach such high points during the day.

The growth of winter wheat has been slowed to some extent by the cold weather. This crop is in fine condition to go into the winter. It is reported, in some sections of the state, that heavy pasturing has been necessary to prevent too great a growth taking place. The last date of planting wheat was made on the third. Wheat planted on the earlier dates has emerged to a good stand.

Garden City, continued:

Sorghum threshing will be started this coming week. Threshing has been delayed because a part of the sorghums were harvested before they were thoroughly dried out. The early harvest was made necessary by frost.
Maximum temperature 87, minimum 19; precipitation 0.

BIG SPRING:

The weather during the past week has been warm and clear with considerable wind blowing most of the time. As a whole conditions were very favorable for cotton picking and all other farm work.

The last of the plats were harvested and a little increase block of Sudan hay was hauled in. Corn was husked and the fodder hauled and weighed. Yields were very light with several failures recorded for several of the plats. Considerable time was spent this week getting ready to start the cattle feeding work again, which is to be a duplication of last year's work. Mr. Black, of the Animal Husbandry Bureau, was here November 6 to help select the cattle. Forty-five head of high grade Hereford calves were selected at that time; these calves were delivered to the Station November 8, and will be put on feed this coming week.
Maximum temperature 85, minimum 35; precipitation 0.

TUCUMCARI:

All cotton plats, with the exception of six varieties planted June 15, have been picked once. It is probable another picking averaging as heavy as the first will be made. Plants are small, but well loaded, and the yield should somewhat exceed the long time average of slightly less than one-fifth bale.

Some threshing was done this week, although on several days high wind prevented. About one-half of the threshing is done and perhaps all but forty plats are ready to thresh. Late date plats and M. C. cane will be too green to handle for some weeks.
Maximum temperature 82, minimum 25; precipitation 0.
Wind velocity 5.5 miles per hour.

WOODWARD:

We had our first killing frost on the night of November 6, when the temperature dropped to 27. The weather up to that time has been very warm and pleasant.

Winter wheat has been making a very good growth and a good many farmers are already pasturing it and many more could. Practically all of the harvesting on the station is completed and threshing has commenced. All of the D.I.A. milo plats have been threshed and over half of the kafir. Yields are fairly high though they have not been computed as yet.

Mr. H. J. Clemmer, of the Dalhart Station, visited the station on on October 27.
Maximum temperature 37, minimum 27; precipitation 0.
Average wind velocity 0.7 miles per hour.

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DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

NOV 1 1924

REPORT FOR WEEK ENDING NOVEMBER 15, 1924.

HUNTLEY:

Colder weather accompanied by snow occurred during the past week. The last few days have warmed up to the extent that the snow is melting rapidly and as the ground is not yet frozen the moisture is all entering the soil. As the snow fell before the greatest drop in temperature was reached most of the winter wheat escaped severe freezing and may benefit by the present precipitation.

The only field work accomplished during the week was the weighing of corn samples for the determination of the moisture content. These weighings will be continued until the grain is air dried.
Maximum temperature 50, minimum -13; precipitation .27 inch.

SHERIDAN:

Samples of sorgo and corn saved for moisture determinations were weighed during the past week and yields of those crops finally computed. Corn in the rotations averaged 25.3 bushels per acre, and ranged from 18.9 bushels in II-132 to 31.0 bushels in Rotation 15. The highest yield of corn secured was on one of the 1/10 acre plats used for the listing experiment, 34.3 bushels on one of the plowed plats. The average yield of sorgo in the rotations was 5860 lbs. per acre, with a range from 5150 lbs. to 6000 lbs per acre, the latter yield in Rotation 53.

Winter weather with some snow was experienced during a part of the week. Rising temperatures have taken the most of the snow now.
Maximum temperature 50, minimum -9; precipitation .25 inch-snow 3 inches.

MANDAN:

Agronomy.

The past week has been cold and was disagreeable for field work during the fore part.

Corn shredding was completed during the week. The average yield in the rotations will be a little better than fifty bushels per acre. The highest yield was between 65 and 70 bushels per acre. Final yields have not been computed, as the correction for the moisture content has not been completed.

The second Annual State Corn Show was held at Bismarck during the the week. There were nearly 500 entries from all parts of the State. The corn was of very high quality, and better than corn produced in more favorable seasons. There was a large class of Northwestern Dent corn, mostly from the western part of the State.

A light snow came on the night of the 10th.
Maximum temperature 53, minimum -1; precitation .01 inch.

Mandan, continued:

Arboriculture.

Height measurements in the Shelterbelt experimental blocks on the station were completed on the 10th, and work has been started in working up the data for the annual report.

From the old Northwest poplar material on the station, it was possible to obtain 40,200 nine-inch cuttings. This number is several thousand short of the number planted last spring, but, with even a fair stand, should supply all the trees of this species needed in 1920.

Horticulture.

The plowing of garden and nursery land has been completed. There was little time to spare, as some frost was already in the ground. The late harvest this year prevented earlier plowing.

Fall planting in the seed beds is almost completed, and the beds have been mulched with hay for the winter.

Trees and strawberries are also being mulched, which with the whitewashing of trees in the pruning experiment, will complete the field work for the year.

Dr. H. L. Walster, North Dakota Agricultural Experiment Station, visited the station on Saturday, November 15.

BELLE FOURCHE:

The week as a whole was cold for this time of the year. On the 12th the temperature dropped to 1 degree below zero. The soil is now frozen to a depth of about 3 inches and fall plowing is at an end unless warmer weather comes soon.

The fall plowing on the dry land rotations was completed the first part of the week with the replowing of the alfalfa plat. This completes the field work for the year.

About four inches of snow have fallen this month but there is very little on the ground at this time.

Maximum temperature 53, minimum -1; precipitation .16 inch.

GARDEN CITY:

Weather conditions have remained about the same throughout the week. Temperatures were a little lower than during the previous week, but no severe weather has been received.

Garden City, continued:

Wheat growth has been stopped somewhat by the low temperatures at night. Most wheat in this part of the country is going into the winter in excellent condition.

The past week was spent in doing odd jobs and in getting things in readiness for threshing.
Maximum temperature 70, minimum 17; precipitation 0.

DALHART:

The weather has been quite cold in this section of the panhandle during the entire week. There was only one day during the week in which the temperature did not get down to freezing. One rain was recorded this week netting .23 inch. This caused the winds to lay for the time being. Strong winds have prevailed in this section for the greater part of the past three weeks. The first hard killing frost of the season was recorded on the night of October 31. Crops standing at that time were killed and a heavy loss of forage resulted from the high prevailing winds. Many farmers had left some of their late crops standing, intending to bind immediately after frost. Due to existing conditions, the crop was practically a loss, since there were not enough leaves left on the stalks to pay to bind. The minimum temperature recorded here to date is 22 degrees.

Field operations for the week have been somewhat varied. The greater part of the time was devoted to heading maize from the increase fields. This has been continued all week with the exception of the interruption by rain. While it was raining, the time was devoted to grinding horse feed and mixing same. While the field was too wet for field work, the time was devoted to transplanting some trees in permanent plantings. The large locust trees that were growing near the stable and implement shed were replaced by Chinese elms. The locusts were practically destroyed by the locust borer.

Cotton is nothing to brag about. The station cotton was as heavily fruited as any cotton seen between Dalhart and Stillwater, Oklahoma, with the exception of cotton on the College Experiment Station. However, there was a decided difference in the ripening. The cotton down in Oklahoma was nearly all fully open. Cotton here is spotted. The May 22 date of planting has opened better than any other date. The crop on May 22 opened good but the other dates are largely bollies of poor quality. The Burnett cotton is the only one that emerged to anything like a stand on the May 22 date. Trice cotton, seeded on June 3, opened better than any other variety on that date, with Half and Half second. Some cotton is being hauled in to Dalhart for ginning. All this cotton is from early plantings.

TUCUMCARI:

Threshing of date and variety plats was continued this week and there now remain about sixty plats, including some variety, date, and rotation. Threshed grain was cleaned, and bundle samples of about sixty plats run through the silage cutter, weighed, and stacked to be hung in the machine shed until thoroughly air dry, when the samples will again be weighed.

Messrs. W. H. Black, of the B. A. I., Washington, and J. L. Lantow, of the State College, spent Thursday at the station cutting the thirty head of steer calves into three lots for the 180 day feeding test. Weights will be made today for the third consecutive day and feeding will begin tomorrow. On the basis of individual weights made yesterday and Thursday the average weight by lots is, No. 1, 362.5 lbs.; No. 2, 364.3 lbs.; No. 3, 360.2 lbs. All lots will be fed ground milo; lot one will also receive cane silage and cottonseed meal; lot two, cane silage and cowpea hay; and lot three, cane fodder and cottonseed meal.

Fall work to be completed includes the plowing of eight plats, taking final soil moisture samples, threshing of about sixty plats, and the second and final picking of cotton.

Cotton yields in this locality will vary greatly, some farmers still claiming their fields will average one-third to one-half bale, while a large acreage has been abandoned due to late planting and poor stand. It is safe to state that a one-fourth bale yield is high enough to include most of the better fields, while the average over the county will be far below this, although there are some fields which may produce one-third and possibly one-half bale. From present indications the station average will approach one-fourth bale, including a number of plats which are very poor; some plats may produce at the rate of one-third bale.

While precipitation to date this year has totaled only 13.32 inches, compared with a nineteen-year average of 10.67 inches for the first ten and one-half months, it appears that most crops will yield better than the long-time average, considering the rotation plats only. Date plats will in many cases be low in grain yield, possibly below the average over a number of years. Average yield of the first sixteen rotation milo plats was 20.3 bushels.

Maximum temperature 72, minimum 29; precipitation .04 inch.
Wind velocity, 5.1 miles per hour.

BIG SPRING:

With the exception of the past two days, weather conditions have been very favorable for farm work. The past two days have been cold and damp, although the temperature has not dropped below 40 degrees.

Big Spring, continued:

The calves, which were delivered to the station, were dehorned and branded November 12. These calves will be put on their regular test rations next week.

Peanut plats were dug and put in stacks this week. The ravens have done considerable damage to these plats by digging out the nuts from beneath the plants before they were harvested.

Maximum temperature 85, minimum 40; precipitation .03 inch.

WOODWARD:

Most of the work done during the week has consisted of threshing of the Cereal Project and seeding and baling seed broomcorn. A short cement sidewalk was put in at the dairy barn. Winter wheat and rye are in better condition at this time than they have been at this time for the past several years.

Messrs. Locke and Stauber, of this station, attended a sale of thoroughbred livestock at Laverne, Oklahoma, on the 10th; most of the stock sold at rather low prices.

Maximum temperature 77, minimum 31; precipitation 1.59 inches.
Average wind velocity 7.1 miles per hour.

NOTES:

With this issue, the Weekly Station Report of this office will be discontinued for this year.

Attention of field men is invited to the fact that in submitting vouchers for water and electric current service, location of meters and meter readings should be indicated on face of vouchers.

In submitting vouchers containing items for chemicals and drugs, purpose for which required must be indicated on face of vouchers. Also items of repair work must indicate in detail character of each item of repairs, with the words added, "Repairs to Government Property."